

Application No. 102.0003-04000
Amendment dated March 27, 2007
Reply to Office Action of February 12, 2007

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REMARKS

Applicant amended independent claims 172 and 248, and dependent claims 219, 305, and 338 to further define Applicant's invention.

In the Office Action, the Examiner has withdrawn the indicated allowability of the claims in view of U.S. Patent No. 5,015,255 to Kuslich ("Kuslich '255").

The Examiner rejected claims 172-176, 178-184, 190-195, 201, 202, 207-226, 237, 238, 247-256, 258-276, and 278-343 under 35 U.S.C. § 103(a) as being unpatentable over Kuslich '255 in view of U.S. Patent No. 5,049,150 to Cozad ("Cozad"). However, as discussed below, neither Kuslich '255, Cozad, nor a proper combination thereof teach or suggest Applicant's invention as claimed in amended independent claims 172 and 248, and independent claims 207, 289, and 332. Accordingly, Applicant respectfully traverses the Examiner's rejection under 35 U.S.C. § 103(a) based on Kuslich '255 in view of Cozad.

Amended independent claims 172 and 248, and amended dependent claims 219 and 338 now recite a hollow tubular guard or hollow guard with "said distal end of said guard having a concave curvature oriented toward and approximating the contour of the face of the adjacent vertebral bodies." Furthermore, amended dependent claim 305 now recites a guard having a distal end "oriented toward and contoured to the curvature of the adjacent vertebral bodies to permit an intimate fit between said guard and the adjacent vertebral bodies." Neither Kuslich '255, Cozad, nor a proper combination thereof teach or suggest a hollow tubular guard or hollow guard with the distal end of the guard having a concave curvature oriented toward and approximating the contour of the face of the adjacent vertebral bodies, or a guard having a distal end oriented toward and contoured to the curvature of the adjacent vertebral bodies to permit an intimate fit between said guard and the adjacent vertebral bodies. As such, amended independent claims 172 and 248, and amended dependent claims 224, 305, and 338 are patentable over the Examiner's rejection under 35 U.S.C. § 103(a) based on Kuslich '255 in view of Cozad.

Independent claims 207 and 289 recite a hollow tubular guard or a hollow guard having a passage for providing guided access to a disc space, and "having a proximal end and an opposite distal end and sides therebetween" with openings (claim 207) or an

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opening (claim 289) through the sides. Furthermore, independent claim 332 recites a hollow guard having a passage for providing guided access to a disc space, and having a proximal end, an opposite distal end, and "a wall that is continuous around the mid-longitudinal axis of said guard, said guard having an opening through said wall."

Note that Kuslich '255 discloses a tool (22) with a shaft (24) having a distal end (26), and cutting blades (40) and (42) deployable through a slot (35) formed in the shaft (24). The tool (22) deploys the cutting blades (40) and (42) to ream "an enlarged cavity on the interior of the opposing vertebra (sic) bodies and removes the degenerative disc material." (Kuslich '255, column 3, lines 3-5). The shaft (24) including the distal end (26) thereof is sized to be partially received within a bore (100) previously formed between vertebral bodies (10a) and (10a'). (See Kuslich '255, Fig. 19). The cutting blades (40) and (42) are then deployed, and the tool (22) is rotated to form an enlarged chamber (102). (See Kuslich '255, column 7, lines 52-60). Kuslich '255 discloses that the tool (22) can be inserted into the bore (100) in an unguided or a guided manner. When guided into the bore (100), a locating cylinder (104) is utilized. (See Kuslich '255, column 8, 39-42). However, the locating cylinder (104) does not include any openings through the sides thereof. Furthermore, Cozad is directed to a tool (10) having a first member (12) and a second member (14). The first member (12) can be received through the second member (14). However, the second member (14), like the locating cylinder (104) of Kuslich '255, does not include any openings through the sides thereof.

Given the above-discussed teachings thereof, neither Kuslich '255, Cozad, nor a proper combination thereof teach or suggest a hollow tubular guard or a hollow guard having a passage for providing guided access to a disc space, and having a proximal end and an opposite distal end and sides therebetween with openings or an opening through the sides, or a hollow guard having a passage for providing guided access to a disc space, and having a proximal end, an opposite distal end, and a wall that is continuous around the mid-longitudinal axis of the guard, the guard having an opening through the wall. As such, the Examiner's rejection of independent claims 207, 289,

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and 332 under 35 U.S.C. § 103(a) based on Kuslich '255 in view of Cozad is deemed to be overcome.

Also, note that the Examiner's rejection under 35 U.S.C. § 103(a) based on Kuslich '255 in view of Cozad in further view of U.S. Patent No. 5,489,307 to Kuslich is moot because of the above-discussed allowable subject matter of independent claims 172, 207, 248, 289, and 332.

Claims 172-184, 201, 202, 247-269, 276, 278-288 and 331-343 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,848,601 to Ma ("Ma") in view of known art. However, as discussed above, amended independent claims 172 and 248 now recite a hollow tubular guard or hollow guard with "said distal end of said guard having a concave curvature oriented toward and approximating the contour of the face of the adjacent vertebral bodies." Ma does not teach or suggest a guard with the distal end of the guard having a concave curvature oriented toward and approximating the contour of the face of the adjacent vertebral bodies. Furthermore, amended independent claim 248 and independent claim 332 recite a hollow guard "having a flat portion between at least some of said extensions for preventing over-penetration said extensions into the spine". Ma discloses a chisel (50) positioned along the spine that is configured to receive a section of disc (24) and portions (20a) and (22a) of vertebrae (20) and (22), respectively. A drill bit (62) is inserted through the chisel (50) to remove the section of the disc (24) and portions (20a) and (22a), and form one of cavities (74) and (75). However, before implantation of a bone plug (32), the chisel (50) is removed from the spine, and a bone plug injector (80) is received in one of the cavities (74) and (75). The bone plug injector (80) includes an end (89) is inserted into one of the cavities (74) and (75). It appears that the bone plug injector (80) relies on contact of the (89) with the end portions of the cavities (74) and (75) to limit the insertion thereof. As such, Ma does not teach or suggest a hollow guard "having a flat portion between at least some of said extensions for preventing over-penetration said extensions into the spine", as recited in amended independent claim 248 and independent claim 332. As such, the Examiner's rejection of independent claims 172, 248, and 332 under 35 U.S.C. § 103(a) based on Ma in view of known art is deemed to be overcome.

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Also, claims 172-184, 201, 202, 247-269, 276, 278-288 and 331-343 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Codman Signature Series 4 ("Codman") in view of Cozad. However, as discussed above, amended independent claims 172 and 248 now recite a hollow tubular guard or hollow guard with "said distal end of said guard having a concave curvature oriented toward and approximating the contour of the face of the adjacent vertebral bodies." Neither Codman, Cozad, nor a proper combination thereof teach or suggest a hollow tubular guard with the distal end of the guard having a concave curvature oriented toward and approximating the contour of the face of the adjacent vertebral bodies. Furthermore, amended independent claim 248 and independent claim 332 recite a hollow guard "having a passage for providing guided access to a disc space and vertebral bodies adjacent the disc space," where the passage is sized "to permit the movement of a spinal implant therethrough". Codman discloses a drill guide depicted in Figs. 21-23 and 25. The drill guide is positioned relative to the spine, and a drill bit is received therethrough to drill a hole in the spine. However, the drill guide is removed prior to insertion of a dowel or bone graft. (See Codman, Figs. 35-37). As such, the drill guide of Codman is not configured to receive a spinal implant therethrough. Therefore, because Cozad is employed by the Examiner to provide engaging portions on the distal end of the drill guide of Codman, neither Codman, Cozad, nor a combination thereof teach or suggest a hollow guard "having a passage for providing guided access to a disc space and vertebral bodies adjacent the disc space," where the passage is sized "to permit the movement of a spinal implant therethrough", as recited in amended independent claim 248 and independent claim 332. As such, the Examiner's rejection of independent claims 172, 248, and 332 under 35 U.S.C. § 103(a) based on Codman in view of Cozad is deemed to be overcome.

Accordingly, Applicant submits that independent claims 172, 207, 248, 289, and 332 are patentable and that dependent claims 173-175, 178-206, 208-247, 249-256, 258-276, 278-288, 290-331, and 333-343 dependent from independent claims 172, 207, 248, 289 or 332, or claims dependent therefrom, are patentable at least due to their dependency from an allowable independent claim.

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In view of the foregoing remarks, it is respectfully submitted that the claims, as amended, are patentable. Therefore, it is requested that the Examiner reconsider the outstanding rejections in view of the preceding comments. Issuance of a timely Notice of Allowance of the claims is earnestly solicited.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this reply, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-3726.

Respectfully submitted,
MARTIN & FERRARO, LLP

Dated: March 27, 2007

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700
Facsimile: (330) 877-2030

By: Thomas H. Martin
Thomas H. Martin
Registration No. 34,383